

## **Exhibit B**

October 15, 1992

Mr. Julius Knapp  
Authorization and  
Evaluation Division  
Office of Engineering  
and Technology  
Federal Communications Commission  
Washington, D.C. 20554

Re: October 22 Meeting to Discuss ESN Security

Dear Mr. Knapp:

I am writing to confirm our meeting to discuss ESN security issues, to be held at 10:00 AM on October 22, 1992 at CTIA's office, 1133 21st Street, N.W., Washington, D.C. In particular, the "Cell Phone Emulator" manufactured by C 2 Plus Technology presents a potential threat to the cellular industry by facilitating the cloning of cellular ESNs on a scale heretofore not possible. In addition, we wish to underscore the importance of insuring the integrity of cellular ESNs, and review the FCC's type acceptance requirements for cellular mobile units. In that regard, I have enclosed a letter from Ms. Mary Anderson to Mr. Frank Coperich concerning YAESU portable phones.

Common Carrier Bureau personnel have been invited to join you, Mr. Coperich and Mr. Art Wall. CTIA's Eric Hill, Director of Industry Security, and Martin Nierwienski, Manager - Technical Support, will conduct the meeting.

If you would like any additional information in advance of Thursday's meeting, please give me or Eric Hill a call at (202) 785-0081.

Sincerely,

*Michael Altschul*  
Michael Altschul

Enclosure

cc: Mr. Steve Markendorff



November 4, 1992

Ms. Renee Licht  
Acting General Counsel  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
AUTHORIZATION & EVALUATION DIV

NOV 6 1992

COLUMBIA, MD

Dear Ms. Licht:

On October 22, 1992, CTIA and the staff of the FCC's Mobile Services Division and the Office of Engineering and Technology met to discuss the applicability of the FCC's rules to the NAM Emulation Programming Device ("NEPD") manufactured and distributed by C Two Plus Technology. At that meeting, CTIA and the Commission staff reviewed the FCC's rules, and Mr. Eric Hill, CTIA's Director of Industry Security demonstrated to the Commission staff that the NEPD alters a cellular phone's factory-set Electronic Serial Number.

As you can see from the attached letter to C Two Plus, CTIA has concluded that the alteration of a cellular phone's ESN by the C Two Plus NEPD is a clear violation of Section 22.915 of the FCC's rules. Based on our demonstration and our review of the device, CTIA seeks the FCC's written concurrence that cellular phones containing ESNs that have been modified by the NEPD (and similar devices) do not conform to the Part 22 Rules.

Given the importance of this matter to the cellular industry's ability to combat fraud, I urge you to act promptly to enforce Section 22.915 of the FCC's rules for cellular service.

Sincerely,



Michael Altschul

Vice President and  
General Counsel

Enclosures

cc: CTIA Fraud Task Force Funding Carriers  
✓ Mr. Julius Knapp, Authorization and  
Evaluation Division, FCC  
Mr. John Cimko, Chief, Mobile Services  
Division, FCC

Cellular Telecommunications Industry Association

1133 21st St. N.W., Third Floor, Washington, D.C. 20036 • (202) 785-0081 • FAX (202) 785-0721



recycled paper

November 3, 1992

Mr. Stuart F. Graydon  
President  
C Two Plus Technology  
3174 Mobile Highway  
Montgomery, AL 36108

Dear Mr. Graydon:

I am writing to thank you for your cooperation with CTIA's Fraud Task Force, and to report on CTIA's findings concerning the C Two Plus Technology NAM Emulation Programming Device ("NEPD"). As you know, our interest in the NEPD directly relates to the ease with which cellular phones with altered Electronic Serial Numbers ("ESN's") can be used to defraud cellular carriers. This is because cellular carriers cannot distinguish between a phone with a factory-set ESN and programmable Mobile Identification Number ("MIN") and a "cloned" (or "emulated") phone with the same ESN and MIN combination. The cellular industry estimates that its losses due to all types of fraud now exceed \$300 million per year.

Based on CTIA's review,<sup>1</sup> including your statement to Eric Hill, CTIA's Director of Industry Security, that the NEPD overwrites the manufacturer's original ESN, it is clear that the C Two Plus NEPD alters a cellular phone's electronic serial number from the unique ESN installed by the manufacturer. It follows, therefore, that a cellular phone with an ESN that has been modified by the NEPD does not comply with Section 22.915 of the Federal Communications Commission's rules, and you should be aware that any individual or company operating such phones or performing such alterations could be subject to appropriate enforcement action.

The requirement that each cellular mobile unit must contain a unique ESN is enshrined in Section 22.915 of the FCC's rules for

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<sup>1</sup>CTIA studied the NEPD using the device you provided. We thoroughly reviewed your instructions and followed the procedures specified by C Two Plus to install any manufacturer's ESN into a second phone. I have enclosed a summary of the procedures we followed to install (or "clone") an ESN from an NEC phone into an Audiovox phone.

Cellular Telecommunications Industry Association

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cellular service.<sup>2</sup> On October 2, 1991, the FCC unambiguously stated that "[p]hones with altered ESNs do not comply with the Commission's rules and any individual or company operating such phones or performing such alterations is in violation of Section 22.915 of the Commission's rules and could be subject to appropriate enforcement action."<sup>3</sup> The FCC established its rules governing ESNs because the requirement that each cellular phone contain a unique ESN is critical to the cellular industry's ability to render accurate bills and control fraud.

There is a direct connection between the enforcement of Section 22.915 of the FCC's rules and the industry's ability to provide high quality service to cellular customers. The cellular infrastructure requires that each phone contain a unique ESN; as a corollary, the cellular industry cannot accommodate two (or more) phones with the same ESN. All current and future technical standards used to interconnect cellular systems to provide "roaming" service to customers rely upon the uniqueness of each mobile unit's ESN. Shared ESNs disrupt billing mechanisms and circumvent fraud detection programs.

Because CTIA considers the alteration of a cellular phone's ESN performed by the C Two Plus NEPD to be a clear violation of Section 22.915 of the FCC's rules, we are sending copies of this letter to our member companies and communicating our findings to the appropriate officials at the Federal Communications Commission. Because the NEPD and C Two Plus's marketing of the device<sup>4</sup> has the potential to undermine the very basis of cellular security and disrupt the industry's efforts to combat fraud, we are urging the FCC to act promptly to enforce its rules.

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<sup>2</sup>In 1983, the Technical Standards Branch of the FCC's Office of Science and Technology issued the "Cellular System Mobile Station-Land Compatibility Specification" in OST Bulletin No. 54. Paragraph 2.3.2 specifies that "[t]he serial number is a 32-bit binary number that uniquely identifies a mobile station to any cellular system. It must be factory-set and not readily alterable in the field." As the enclosed FCC public notice explains, the specifications set forth in paragraph 2.3.2 of OST Bulletin No. 53 are incorporated into Section 22.915 of the Commission's rules. See October 2, 1991 Public Notice, "Changing Electronic Serial Numbers on Cellular Phones Is a Violation of the Commission's Rules", (FCC Report No. CL-92-3).

<sup>3</sup>Id.

<sup>4</sup>The enclosed C Two Plus marketing brochure, "Quick Reference Taken From FCC Rules and Regulations," is false and misleading. It asks "Is CELL TWO PLUS Emulation Illegal?" and then states "The CELL TWO PLUS feature is not specifically mentioned in the FCC Rules as this technology was not developed at that time..." As I have noted, Section 22.915 of the Commission's rules affirmatively prohibits ESN cloning.

CTIA does appreciate your cooperation, and I invite you to discuss our findings with me or Mr. Hill. Now that our review of the NEPD is complete, CTIA is returning under separate cover the equipment you provided.

Sincerely,

  
Michael Altschul

Vice President and  
General Counsel

Enclosures

cc: CTIA Fraud Task Force Funding Carriers  
Ms. Renee Licht, Acting General Counsel, FCC  
✓ Mr. Julius Knapp, Authorization and  
Evaluation Division, FCC  
Mr. John Cimko, Chief, Mobile Services  
Division, FCC

### Summary of C-Two-Plus Instructions

1. Data obtained from C Two Plus must be programmed into the phone. In the case of the Audiovox CMT-420 phone, the data is programmed into the first four "System ID Inhibit" locations. The data consists of four numbers, each with five digits. C Two Plus generates these numbers from two customer-provided ESNs: the factory set original ("primary") ESN associated with the phone and the secondary ("cloned") ESN associated with a different phone.
2. The phone's factory-installed firmware chip must be removed.
3. A chip provided by C Two Plus must be placed in the NEPD, and the NEPD must be connected to the phone by inserting a cable into the same location from where the manufacturer's original firmware was removed.
4. After powering the phone for twenty seconds, then powering off, the NEPD is removed from the phone, and the manufacturer's original firmware chip is re-inserted into its original location.
5. If the programming procedure is done correctly, the mobile unit displays error message "01". If no error message appears, then the procedure was done incorrectly and must be repeated.

## QUICK REFERENCE TAKEN FROM FCC RULES AND REGULATIONS:

Q. CAN I TALK BETWEEN MY MOBILE PHONES? NO! This would be considered a 'Party Line or Fleet-Call' situation which is prohibited under FCC Rules.

If both phones are on at the same time and one tries to call out, the first one pressing the SEND key grabs the line and locks the other one(s) out. If both are on and a call comes in, the tower equipment cannot handle multiple answers on one line and you may lose the call.

FCC

[Page 22672] 6. SERVICES: 103. The final decision in Docket No. 18262 imposed NO RESTRICTIONS on cellular system provision of dispatch services, EXCEPT FOR FLEET-CALL DISPATCH. We concluded that if cellular systems could, through natural economics, provide lower-priced dispatch services, THE PUBLIC SHOULD NOT BE DENIED THAT BENEFIT.

[Page 27679] 22.911 PERMISSIBLE COMMUNICATIONS (a) Mobile Stations in this service are authorized to communicate WITH AND THROUGH BASE STATIONS ONLY. (d) General and dispatch communications are permitted on cellular systems. Pending further investigation by the Commission, "fleet call" dispatching, in which a dispatcher SIMULTANEOUSLY COMMUNICATES with multiple mobile units, WILL NOT BE PERMITTED except on a developmental basis.

[Page 22672] 118. [PARTY LINE/FLEET COMMUNICATIONS PROHIBITED] (2) because the mobile units would each require a separate voice channel, while a conventional system could operate over single channel.

Q. IS CELL TWO PLUS EMULATION ILLEGAL? The CELL TWO PLUS feature is not specifically mentioned in the FCC Rules as this technology was not developed at that time, however, REGULATORY STRUCTURE anticipates State Of The Art improvements:

FCC

[Page 27671] We are establishing a regulatory structure under which a cellular system operator, once authorized, will have considerable freedom to adapt its system to growing or changing demand. FLEXIBILITY TO ADAPT TO CHANGE IS INHERENT IN THE CELLULAR CONCEPT AND AN APPROACH REQUIRING ANY MORE PAPERWORK OR PRIOR APPROVAL THAN IS ABSOLUTELY ESSENTIAL MIGHT DESTROY THAT FLEXIBILITY. Accordingly, once a cellular service area has been established, the system operator will be able to modify its system without substantial oversight, as long as it serves the same area.

[Page 27666] 56. A cellular system operator is a common carrier and not merely a customer; interconnection arrangements should therefore BE REASONABLY DESIGNED SO AS TO MINIMIZE UNNECESSARY DUPLICATION OF switching facilities and the ASSOCIATED COSTS TO THE ULTIMATE CONSUMER.

[Page 22672] 103. We (FCC) concluded that if cellular systems could, through natural economics, provide lower-priced dispatch services, THE PUBLIC SHOULD NOT BE DENIED THAT BENEFIT.

[Page 22672] D. CONCLUSION 112. CELLULAR SYSTEMS SHOULD BE CAPABLE OF ADAPTING TO CHANGING CUSTOMER DEMANDS AND ADVANCING TECHNOLOGY. Licensees in this service WILL HAVE THE RESPONSIBILITY to ADAPT to the CHANGING MARKET ENVIRONMENT.



I, #3

# FEDERAL COMMUNICATIONS COMMISSION

Common Carrier Bureau

Mobile Services Division

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## Facsimile Transmission Cover Sheet

Room 644, 1919 M Street NW, Washington, DC 20554  
Telephone: voice (202) 632-6450 fax (202) 634-7845

Date: -----

To: Julius Knapp-----

Fax #: (301) 344-2050-----

Contact #: -----

From: Dan Abeyta-----

Total pages • 4----- including this cover sheet

Message/Special Instructions: -----

Attached letter responds to CTIA's November 6, 1992 letter  
to Renee Licht seeking Commission concurrence that any alteration  
of a cellular telephones ESN violates Section 22.915 of the Rules.  
Please review.-----



I, #4

ohn

page 1

From jcjccb  
From: jcjccb@ccbmsd.UUCP (John Cimko)  
X-Mailer: Altos UNIX System V Mail (version 3.2)  
To: ccbmsd!jmtccb  
Date:  
Status: R

FEDDS MESSAGE BEGINS HERE >>>

Sender: ccbmsd!jcjccb : John C.  
Date:  
Subject: Cellular Phone ESNs  
CC: mcpccb slmccb Primary: jmtccb  
RR: y

Jim:

Mike Altschul tells me that he sent a letter over here after the briefing we attended on the ESN tampering problem, asking the Commission to express its views on the legality of this tampering. He says the letter was referred to OGC, but they inform him they have "tasked" the letter over to MSD for a response.

Mike is anxious to get a response that says that, as a general matter, any ESN alteration runs afoul of our rules (we have already said something like this in public notices).

John C.

I, #5

COMMON CARRIER BUREAU  
ROUTE SLIP

TO:

\_\_\_ CHERYL TRITT  
\_\_\_ JILL ROSS MELTZER  
☒ GERALD VAUGHAN  
\_\_\_ KATHIE LEVITZ  
\_\_\_ WENDELL HARRIS  
\_\_\_ JIM SPURLOCK  
\_\_\_ TOM SPAVINS  
\_\_\_ TOM BEERS  
\_\_\_ GERI MATISE  
\_\_\_ ELLE MULCARE  
\_\_\_ JOE HALL

\_\_\_ JAMES KEEGAN  
\_\_\_ GREG WEISS  
\_\_\_ GREG VOGT  
\_\_\_ KEN MORAN  
\_\_\_ GEORGE LI  
\_\_\_ JIM SCHLICHTING  
\_\_\_ JOHN CIMKO  
\_\_\_ PEYTON WYNNIS

	Action		Coordination		Per Conversation
<input checked="" type="checkbox"/>	Approval		File		Prepare Reply
	As Requested		For Correction		See Me
	Circulate		For Your Information		Signature
	Comment	<input checked="" type="checkbox"/>	Note and Return		

REMARKS

CTIA has requested the attached letter  
from the Division

The letter is similar to a  
recent Public Notice, also attached.  
Please let me know if you are OK  
on this

Thanks

John

FROM JOHN CIMKO

DATE \_\_\_\_\_

CC 64  
MAY 1992

220

**FEDERAL COMMUNICATIONS COMMISSION**  
**Washington, D.C. 20554**

January 15, 1993

**In Reply Refer To:**  
**1600D-JMT**

Cellular Telecommunications Industry Association  
1133 21st St., N.W., Third Floor  
Washington, D.C. 20036

Attn: Michael Altschul

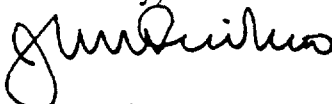
Dear Mr. Altschul:

This is in response to your letter of November 4, 1992 concerning the applicability of the FCC's rules to the NAM Emulation Programming Device (NEPD) manufactured and distributed by C Two Plus Technology. You ask for Commission concurrence that cellular phones containing Electronic Serial Numbers (ESNs) that have been modified by the NEPD (and similar devices) do not conform with Part 22 rules.

In our Public Notice of October 2, 1991, Report No. CL-92-3, we stated our general position that "phones with altered ESNs do not comply with the Commission's rules...." We also stated that "any individual or company operating such phones or performing such alterations is in violation of Section 22.915 of the Commission's rules and could be subject to appropriate enforcement action." Section 22.915, entitled Cellular system compatibility specifications, generally sets forth the standards of cellular operation as reflected in the Cellular System Mobile Station-Land Station Compatibility Specification (April 1981 ed.), Office of Engineering and Technology Bulletin No. 53. The bulletin is contained in Appendix D to the Report and Order in CC Docket No. 79-318, 86 FCC 2d 469, 567 (1981).

It is a violation of Section 22.915 of the Commission's Rules for an individual or company to alter or copy the ESN of a cellular telephone so that the telephone emulates the ESN of any other cellular telephone. Moreover, it is a violation of the Commission's Rules to operate a cellular telephone that contains an altered or copied ESN.

Sincerely,



John Cimko  
Chief, Mobile Services Division  
Common Carrier Bureau

## **Exhibit C**

# Congress expected to unveil revised guidelines for wiretaps

By Jeffrey Silva

WASHINGTON—Sen. Patrick Leahy, D-Vt., and Rep. Don Edwards, D-Calif., within weeks are expected to introduce a significantly revamped version of the controversial, digital telephony wiretap legislation proposed by the administration earlier this year.

Sources say identical bills will be offered concurrently in the House and Senate that, among other things, set wiretap standards for common carriers and put in place enforcement mechanisms.

However, imposing a \$10,000-a-day fine on wireless and wireline common carriers for noncompliance and other provisions originally sought by the Federal Bureau of Investigation are expected to be watered down in the revised legislation.

Getting digital telephony wiretap bills introduced would be a big victory for the FBI. In recent years, it has failed to overcome opposition from lawmakers, industry, civil liberty groups and others who fear privacy rights will be compromised by making eavesdropping easier for law enforcement.

*Imposing a \$10,000-a-day fine on wireless and wireline common carriers for noncompliance and other provisions originally sought by the Federal Bureau of Investigation are expected to be watered down in the revised legislation.*

Leahy and Edwards, who head judiciary subcommittees in their respective chambers, held joint House-Senate hearings on the FBI's digital telephony wiretap proposal earlier this year, and themselves expressed that concern.

The FBI, for its part, asserts legislation is needed because new technologies are undermining its ability to carry out court-authorized electronic surveillance to combat crime, drug trafficking and international terrorism. The agency insists improvements to wiretap laws encompassed in the Electronic Communications Privacy Act of 1986 are inadequate.

As such, the FBI in 1994 found lawmakers perhaps more willing to listen as violence in this country reached epidemic levels. Another reason Congress might be more willing than before to work on a digital telephony bill is FBI Director Louis Ladd, a Clinton appointee who seems to be widely respected and admired.

"I think that we'll see a law this year," predicts Thomas Wheeler, president of the Cellular Telecommunications Industry Association. Wheeler said the legislation must clarify how much cellular switch-port

capacity is necessary for wiretaps and how roaming calls being wiretapped should be routed. He also wants the cellular fraud problem addressed in the legislation.

Wheeler said because cloning a cellular phone's electronic serial number is not illegal, something he wants changed, law enforcement officials face the prospect of inadvertently

tapping into conversations of people not subject to the wiretap. The possibility of that happening would be diminished if the cloning loophole were closed, he noted.

While the administration made headway on one front it lost ground on another. Dr. Matthew Blaze, a computer scientist with AT&T Bell Labs found a flaw in the Clipper Chip, a key escrowed encryption standard the White House swears by and wants the federal government, telecommunications industry and American public to adopt.

AT&T is one of the first companies

to have a Clipper Chip in a privately owned, non-transportable cellular phone. A spokesman said the firm has no plans to abandon the encryption algorithm developed by the Commerce Department's National Institute of Standards and Technology, the National Security Agency and other federal agencies.

The two keys needed to descramble the Clipper Chip are to be held by NIST and the Treasury Department. The chip has attracted the same opponents active in the digital telephony wiretap measure.

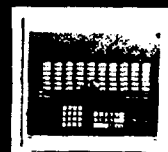
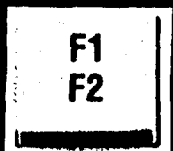
## Obedient Buttons

**They Do What You Tell Them  
(and only talk back when requested)**

Zetron's Series 4000 Communications Control System and Model 4010 Radio Dispatch Console offer more flexibility and control than any other equipment in the industry. Any button can be programmed to perform channel control functions, system control functions, instant call paging, and auxiliary input/output switching.

You can quickly add channels and pagers or rearrange button layouts to fit your requirements as your system grows or changes.

Don't let yourself get frustrated with consoles that won't do what you ask them to do. Equip your dispatch center with Zetron's communications equipment and take control today.



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**ZETRON**

## **Exhibit D**

## CHATTANOOGA TRIAL RESULTS

YOU WILL RECALL FROM THE LAST FRAUD ALERT BULLETIN WE REPORTED ON A COUNTERFEIT PHONE TRIAL HELD IN CHATTANOOGA AT WHICH TIME THE DEFENDANT RECEIVED A GUILTY VERDICT. SENTENCING WAS PASSED DOWN IN JANUARY AND HE RECEIVED A THREE YEAR PROBATION AND ORDERS TO MAKE FINANCIAL RESTITUTION.

### EXTENSION PHONES - C2+ TECHNOLOGY

ALTHOUGH THIS TOPIC HAS BEEN DISCUSSED BOTH IN PREVIOUS FRAUD ALERT BULLETINS AND IN ALL OF OUR FRAUD AWARENESS TRAINING SEMINARS, I RECEIVE PHONE CALLS QUITE OFTEN FROM EMPLOYEES WHO HAVE NO KNOWLEDGE OF THIS ACTIVITY. FOR THE BENEFIT OF NEW EMPLOYEES AND THOSE WHO HAVE NOT READ OR HEARD ABOUT THIS PROBLEM, I WOULD LIKE TO ADDRESS IT ONCE AGAIN.

C2+ TECHNOLOGY IS A COMPANY OUT OF MONTGOMERY, ALABAMA, WHO HAVE BEEN PROVIDING "EXTENSION PHONES" FOR QUITE SOMETIME NOW. THEY HAVE ALSO SOLD DISTRIBUTORSHIPS OR FRANCHISES TO LITERALLY HUNDREDS OF INDIVIDUALS AND/OR COMPANIES THROUGHOUT THE UNITED STATES AND CANADA.

THEIR BUSINESS APPROACH IS TO LURE LEGITIMATE CELLULAR CUSTOMERS INTO BUYING PHONES FROM THEM THAT CONTAIN THE CUSTOMER'S EXACT MOBILE NUMBER AND ESN COMBINATION OF THE PHONE THEY ARE CURRENTLY USING. NO MATTER HOW YOU LOOK AT IT, THE DUPLICATED PHONE IS A CLONE OR COUNTERFEIT. THEIR ADVERTISING STRESSES THAT AN EXTENSION PHONE ALLOWS A CELLULAR USER TO HAVE MULTIPLE PHONES, YET PAY ONLY ONE MONTHLY SERVICE CHARGE PER MONTH TO THE CELLULAR CARRIER.

THE FCC STATES "IT IS A VIOLATION OF SECTION 22.915 OF THE COMMISSION'S RULES FOR AN INDIVIDUAL OR COMPANY TO ALTER OR COPY THE ESN OF A CELLULAR TELEPHONE SO THAT THE TELEPHONE EMULATES THE ESN OF ANY OTHER CELLULAR TELEPHONE. MOREOVER, IT IS A VIOLATION OF THE COMMISSION'S RULES TO OPERATE A CELLULAR TELEPHONE THAT CONTAINS AN ALTERED OR COPIED ESN." HOWEVER, THE FCC HAS NO LEGAL EMPOWERMENT OVER THESE INDIVIDUALS OR COMPANIES ASSOCIATED WITH C2+ TECHNOLOGY; NOR IS THERE A LAW OR STATUTE COVERING THIS TYPE ACTIVITY.

CURRENTLY, WE HAVE NO LEGAL RECOURSE AGAINST THESE PEOPLE.

IN THE RECENTLY PUBLISHED FCC NOTICE OF PROPOSED RULEMAKING, THIS WAS ONE OF MANY SUBJECTS ADDRESSED. CERTAINLY, BELL SOUTH CELLULAR, ALONG WITH OTHER CARRIERS AND THE C.T.I.A. HAVE SUBMITTED REPLIES ADAMANTLY STATING THE OPINION THAT CELLULAR SERVICE WAS DESIGNED TO OPERATE ON THE BASIS THAT EACH CELLULAR PHONE WOULD HAVE A UNIQUE MOBILE NUMBER



## **Exhibit E**

**"We understand that it is incumbent on us to establish and maintain a licensing process as lean as we can make it. . ." says John Cimke, chief of the FCC's Common Carrier Bureau's Mobile Services Division.**



John Cimke

In this exclusive interview with Lou Manetta, Washington bureau chief for *Cellular Marketing*, John Cimke discusses the regulatory climate for cellular and personal communications services (PCS).

**What is on your agenda for the next few months concerning the cellular industry?**

Let me mention four things that are at the head of the list for right now. One is the pending Part 22 rulemaking. We have begun work reviewing the comments. This is near or at the top of the list in terms of priorities. It represents a comprehensive revisiting and reworking of our rules and gives an opportunity to the Commission and the industry to focus on how the rules have worked and how they need to be adapted in order to accommodate the changes that have occurred so rapidly.

Other things on our agenda in the near term include the taking of applications for unserved areas. We are close to coming out with a public notice which will indicate that we'll be taking system information updates, and will begin to accept applications in February or March. This is one of the last steps in getting service everywhere in the country. We're anxious to bring it to fruition.

We have on reconsideration an issue as to how the renewal process will work. Parties are advocating that

the Commission change its approach with respect to the rules governing renewals. It's important that we get resolution of that issue because we're not that far away from having to deal with renewals. We need to have rules in place.

The last item I would like to mention is the pending petition from Telocator asking the Commission to initiate a rulemaking which would allow cellular spectrum to be used on a private carriage basis. I'm not here to advocate an outcome in this rulemaking one way or the other, but I did want to draw attention to it as something important on our agenda. We want to give parties an opportunity to comment on what Telocator is talking about.

**What is your opinion on the California PUC's recent decision in the Cellular Oil to permit resellers to provide switching functions?**

In terms of my own view of that decision, certainly the FCC shares the same objective of fostering a competitive marketplace. I think that a point that deserves emphasis at the outset is that the FCC took that step initially when it set up the regulatory regime in cellular by establishing head-to-head competition between carriers in the same cellular market. I would say that the Commission is pointing to a different route towards achieving a greater level of competition rather than the type of ap-

proach California has taken. We have initiated the PCS rulemaking as a means of increasing competition. There is no disagreement over the objectives of the rulemaking action and what the Commission has, in large part, already achieved and continues to improve upon.

**What are you hoping to accomplish with the proposed rewrite of Part 22?**

I think we have two major objectives. One is to further pursue our goal of making sure that spectrum is being efficiently utilized. That is one of our principal responsibilities as regulators. I think the Part 22 rewrite is another chance for us to look at this question overall. Do we have practices in place that achieve that efficiency?

A second broad objective is to look at our own procedures, the way in which the licensing process works, the way our processing rules work, and assess the extent to which that can be streamlined and made more efficient. Can the rules be revised in ways that reduce the kind of burdens that applicants and licensees face when going through that process? We understand that as we pursue the goal of greater competition in the marketplace, one of the burdens it puts on our Division and the Commission is that we give competitors the ability to adapt quickly and respond quickly to what the

marketplace demands. Recognizing that, we understand that it is incumbent on us to establish and maintain a licensing process as lean as we can make it while still making sure the responsibilities we have in overseeing the operations of the industry are being met.

**Should the FCC be doing more to combat cellular fraud?**

From the Commission's end a couple of things are going on. A little over a year ago the Commission released a public notice which drew attention to this problem and indicated that any tampering with Electronic Serial Numbers (ESN) on cellular phones violates Commission rules. In addition to that, the Part 22 rulemaking proposes further changes to the rules that set out in more detail what manufacturers are expected to do when producing cellular phones, how the integrity of the ESN is to be maintained, and how phones should be designed to minimize tampering, with a view towards getting a handle on this problem from a regulatory perspective.

One of the difficulties we face is the fact that the "bad guys" are not licensees and are not directly subject to our jurisdiction. This serves as a constraint on the kind of regulatory steps we can take to solve this problem. Nonetheless, we're trying to draw attention to the issue in the Part 22 rulemaking and will try to take action there.

## TWO-FERS

### C2+ CHALLENGES CTIA ACTIONS IN CELLULAR "EMULATION" CASE

Almost a year ago (see CS&M, April 1992) we were the first publication to write about a new "sophisticated, copyrighted emulation software" from Cellular-Two-Plus Marketing (C2+) which "makes it possible to put 2 (or more) phones on one number but which does not increase the chances of cellular fraud." Nothing much came of that story. This newsletter circulates only among individuals and companies in the cellular industry.

It wasn't until a similar story appeared in our "Road Work" column in Mobile Office magazine (Oct. 1992, "Cellular Double Dip") that we received a reaction. Several of our oldest friends in the industry called to advise us that our statement in that column that "you can legally have more than one phone activated on the same number" was, in fact, not correct.

For our part, we're reserving judgment on this matter until the courts make a decision. In the meantime, however, let's examine both sides of the story.

Let's assume you have 2 telephones at home--one upstairs, one downstairs. How many telephone numbers do you have? Most likely, just one number, and it works on both phones.

Nothing out of the ordinary there. (Two (or more) phones on the same number has been standard procedure in the landline telephone network for probably 100 years.

Now, think back 15 years or so, when you could buy an extension phone at the local Radio Shack and install it yourself. Of course, the phone company wouldn't let you use it unless you (1) told them about it, and (2) paid an extra fee each month. Most of us who installed our own extension phones just kept quiet about it. We knew we were violating something, but we didn't care. We paid our phone bills every month and didn't feel like we were hurting anyone.

For years, Ma Bell made a great deal of fuss about "illegal" extension phones. If she caught you, there was you-know-what to pay. She angered a lot of people over this policy and a whole host of other similar issues, insisting that she, and she alone, had the right to install and own both primary and extension phones, and the heck with public interest.

If you asked her, "Why is it illegal for me to own my own extension phone? What possible harm am I causing to you or your network?" she would hesitate and mumble something about how it "wasn't allowed under the tariff."

Anyone who attempted to figure out what that meant had trouble getting a straight answer. Basically, it came down to, "We don't want to let you do it, and that's that."

We all know what happened, of course. The Justice Department came along and broke Ma Bell into a whole bunch of pieces about 10 years ago. Now you can own all the extension phones you want to. It's become such a big business that AT&T and the "Regional Bell Operating Companies" (which are a large part of what used to be the Bell System) have opened their own phone stores and will sell you a whole host of COAM, which means "customer owned and maintained equipment."

That's what happened in the landline network.

A somewhat similar scenario appears to be occurring on the new wireless network. The ultimate outcome may once again be determined by the courts.

Here are the players: On the one side, you find the cellular industry as represented by the Cellular Telecommunications Industry Association as well as individual carriers acting on their own behalf. You also have major cellular manufacturers such as Motorola.

On the other side, you have a small, entrepreneurial company known as Cellular Two Plus (C2+), which has come up with a way to "legally" (its term) put 2 cellular telephones on the same phone number.

"Not allowed!" shout the CTIA et al. "Why not?" asks C2+. "Because it's against FCC regulations," says the cellular industry.

Yes, indeed, there is a regulation on the books that says, "[The ESN] uniquely identifies a mobile-station to any cellular system. It must be factory set and not

illegally alterable in the field. The circuitry that provides the serial number must be isolated from fraudulent contact and tampering. Attempts to change the serial number circuitry should render the mobile station inoperative."

CTIA alleges that C2+ is violating this regulation. It cites as its authority an Oct. 2, 1991, "public notice" from the FCC stating that "phones with altered ESNs do not comply with the Commission's rules and any individual or company operating such phones is

March 1993

making such alterations is in violation of Section 22.915 of the Commission's rules and could be subject to appropriate enforcement action."

CTIA mailed copies of this public notice to all of its members on Nov. 5, informing them that "CTIA has carefully examined the C2+ NAM Emulation Programming Device and has found the device to directly violate FCC rules regarding ESN tampering. We are notifying C2+ of our findings and asking the FCC to enforce its rules in this area."

CTIA also sent letters to about 2 dozen magazines, newspapers and even newsletters that accept no advertising (including this one) urging them not to accept ads for C2+ service.

"This is a consumer issue, not a regulatory issue," explained C2+ attorney Jeff Blumenfeld. To Blumenfeld, C2+'s problems are a case of *deja vu*. Blumenfeld and his partner, Gary Cohen, played a key role in the DOJ's case that led to the break-up of AT&T 10 years ago for what he sees as similar anti-competitive actions--a regulation that was adopted to prevent fraud is being used to stifle a service that is in the public interest. "Fraud is getting something without paying for it," Blumenfeld said. "[With C2+] you're paying for everything you use. C2+ has no fraud element. The only thing that is not being paid for is a second phone number, which is not being used."

"It's a case of a service that is in the public interest and for which there is a public demand--and which does no harm to the network. That was the basis of the DOJ's case against AT&T," he said.

"If there is to be enforcement in the legal sense, the action may have to come through the court system rather than the FCC, according to Steve Markendorf, chief, cellular branch, mobile services division of the FCC. "I don't know if we can say what C2+ is doing is 'illegal,' but from what we've seen of it, it is not in accord with FCC rules and regulations," Markendorf said in an interview with CS&M. "Subscribers do not have a choice. They are operating under the license of the carrier. Carriers have the right to know what goes over their network. This has nothing to do with the FCC....They [C2+] are not a licensee, so...if it's determined to be a violation,...the Justice Department would have to go after them."

"We are working closely with the FCC on some possible enforcement issues," CTIA director of industry security Eric Hill told us. "Several state statutes govern the question of an individual receiving services without paying for them....But the clearest issue is that FCC rules are being violated."

To C2+ and its attorneys, what is at stake is not just an alleged violation of an FCC regulation.

"C2+ raises important consumer and competitive questions," Blumenfeld said.

"Furthermore, if C2+ is violating an FCC regulation, enforcement should come from the FCC, not from an industry trade group."

"But," he continued, to allege that C2+ violated a regulation "is not the answer. That's the problem....If I'm a consumer and I want an extension phone, ...the American way is that if it benefits the consumer [and doesn't harm the carrier or the network], then I should be able to buy it." (Cellular-Two-Plus Marketing, 448 S. Lawrence St., Montgomery, AL 36104, 205/264-0264.)

## **Exhibit F**

Cellular One Center  
1600 SW 4th Avenue  
Portland, OR 97201

October 22, 1992

Neil Grubb  
District Manager  
Sales & Distribution

McCaw  
100 3/10

**CELLULARONE**  
IMAGINE NO LIMITS

TO: All Authorized Dealers and Retailers  
FROM: Neil Grubb, District Manager, Sales & Distribution  
SUBJECT: Cellular Two Plus (C2+)

Some of you may have recently read advertisements or received literature from Cellular Two Plus (C2+) or their local distributor Twin Cell. The company promotes the concept of "multiple phones on one number." Through their "NAM emulation programming device" the company advocates the duplication of a mobile telephone's ESN in a second mobile telephone.

We believe this activity to be illegal. Further, since C2+ appears to be in violation of the F.C.C. rules, companies that participate in this type of activity could be held accountable. I have attached a Public Notice letter from the F.C.C. that addresses the altering of ESN's.

We feel strongly that these types of products encourage fraud and distribution in McCaw cellular markets will not be tolerated.

Please see your Dealer or Retail Manager if you have further questions or information about the distribution of C2+.

CAROL  
PATTON

## MEMORANDUM

DATE: FEBRUARY 8, 1993  
TO: DISTRIBUTION  
FROM: TODD YOUNG  
RE: FCC RESPONSE REGARDING CELLULAR "CLONING AGENTS"

In the last year, I have received numerous inquiries from market managers, Field Operations personnel and Agents regarding distributors who are offering a service which allows customer to have: "Two Cellular Phones With the Same Phone Number!!!"

Companies known to be offering this type of service include:

Cellular 2-Plus  
Extend-A-Cell and  
Cell-U-Soft

Other business names are being used by local distributors acting as agents for the above companies in several of our markets. The "service" offered by these organizations involves the use of a computer interface device to modify cellular phones so that they will emulate the ESN of another phone. They effectively make "clone" phones.

In response to the industry's concern over this issue, CTIA representatives met with the FCC in October 1992. The attached letter from the FCC to the CTIA reflects the official position of the FCC:

"It is a violation of Section 22.915 of the Commission's Rules for an individual or company to alter the ESN of a cellular phone so that the telephone emulates the ESN of any other cellular telephone. Moreover, it is a violation of the Commission's Rules to operate a cellular telephone that contains an altered or copied ESN."

This language leaves little doubt about the FCC position on the alteration of cellular ESN's by so called "legitimate" service providers such as Cell 2-Plus.

I recommend that each of you retain a copy of this letter from the FCC and make it available to your staff, agents, retailers (and customers) who might inquire or receive inquiries about the legitimacy of these types of service providers. If you become aware of individuals or companies offering these cloning services, please contact Tom Ames at 206-562-5086.

CTIA<sup>®</sup>

February 24, 1993

Ms. Rhonda Wickham  
Cellular Business Magazine  
9800 Metcalf Avenue  
Overland Park, KS 66212-2215

*Mecc?  
what do you think  
about this?  
CA, 1/9*

Dear Ms. Wickham:

There recently has been an increase in the amount of advertising from companies offering "two-fers", or one cellular mobile number with two phones. These companies often advertise as distributors, resellers, or agents of the "C Two Plus" system, and claim to offer a legitimate service. Please see the attached advertisement for examples. CTIA and the cellular carriers and manufacturers which it represents would like Cellular Business Magazine to know that there is no lawful use for this service.

The "two-fer" services require the copying or "emulation" of one cellular phone's electronic serial number (ESN) into another cellular phone. Pursuant to FCC rules, a cellular phone's ESN must be set by the phone's manufacturer, and each cellular phone is required to have a "unique" ESN. The "C Two Plus" system corrupts a cellular phone's factory firmware and overwrites the original ESN with the ESN of another phone.

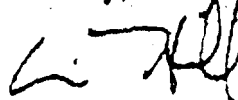
CTIA and the Federal Communications Commission recently corresponded about this matter. Please see the enclosed letters for further information. The FCC maintains:

"It is a violation of Section 22.915 of the Commission's Rules for an individual or company to alter or copy the ESN of a cellular telephone so that the telephone emulates the ESN of any other telephone."

CTIA's Fraud Task Force works with cellular carriers to combat the industry's \$300 million cellular fraud problem. The "C Two Plus" service can facilitate fraud by enabling anyone with a fraudulent intent and a valid ESN/mobile number combination to reprogram a cellular phone with the mobile number and ESN of a legitimate cellular subscriber -- without that person's consent or knowledge, thereby causing the subscriber to be billed for the calls made by the fraudulent phone.

I ask Cellular Business Magazine to consider the potential impact of this unlawful activity before granting advertising to these companies. If I may be of any assistance, please do not hesitate to contact me at the number below.

Sincerely,



Eric Hill  
Director of Industry Security

Enclosures

Cellular Telecommunications Industry Association

1111 21st St. N.W. Third Floor, Washington, D.C. 20036 • (202) 785-0081 • FAX (202) 785-0721





February 24, 1993

Mr. Stuart Crump  
Cellular Sales & Marketing  
P.O. Box 1519  
Herndon, VA 22070

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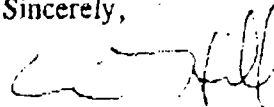
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recycled paper